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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,273	12/11/2000	Thomas C. Harrop	50671-P018US-10013652	5508

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EXAMINER

NGUYEN, DUSTIN

ART UNIT PAPER NUMBER

2154

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,273

Applicant(s)

HARROP, THOMAS C.

Examiner

Dustin Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-16 and 18-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-16 and 18-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-4, 6-16, 18-33 are presented for examination.

Information Disclosure Statement

2. Examiner requests Applicants to update status of any related cases as mention in the disclosure.

Response to Arguments

3. Applicant's arguments filed 07/26/2004 have been fully considered but they are not persuasive.
4. As per remarks, Applicants' argued that (1) Lumelsky does not predict future availability based on historical availability, and then trigger an allocation when the future availability exceeds a threshold.
5. As to point (1), the above limitation is rejected for the reasons as set forth below. Furthermore, Lumelsky discloses that quality of service is configurable, predictable, and maintainable [col 2, lines 65-col 3, lines 1; and col 14, lines 1-21].

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6. As per remarks, Applicants' argued that (2) in Lumelsky, a resource may be allocated, but there is not physical resource addition.

7. As to point (2), Ding discloses manually added resource to the computer [i.e. installing more memory] [col 21, lines 53-col 22, lines 4]. In fact, there is nothing in specification that Applicants disclose "physically" resource addition.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-4, 6-16, 18-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky et al. [US Patent No 6,460,082], in view of Ding et al. [US Patent No 6,691,067].

10. As per claim 1, Lumelsky discloses the invention substantially as claimed including the method of allocating additional hardware resources in a computer having a plurality of hardware resources, said method comprising:

automatically analyzing said obtained historical data to arrive at a prediction of a future level of availability of a monitored hardware resource [col 4, lines 14-22; col 14, lines 22-57; and col 14, lines 58-col 15, lines 11]; and

providing a signal when said prediction of the future level of availability of the monitored resource fails to meet an availability threshold [i.e. trigger exception] [col 16, lines 9-37].

Lumelsky does not specifically disclose

monitoring use of selected ones of said hardware resources by the computer to obtain historical data pertaining to the historical availability to the computer of each said monitored hardware resource; and

without user intervention, responding to the signal by automatically allocating an additional hardware resource to be manually physically added to the computer.

Ding discloses

monitoring use of selected ones of said hardware resources by the computer to obtain historical data pertaining to the historical availability to the computer of each said monitored hardware resource [Abstract; and col 6, lines 14-26]; and

without user intervention, responding to the signal by automatically allocating an additional hardware resource to be manually physically added to the computer [i.e. installing] [col 21, lines 53-col 22, lines 4].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Lumelsky and Ding because Ding's teaching of monitored resource would provide a more accurate and efficient monitoring and prediction of computer system performance [Ding, col 2, lines 41-44].

11. As per claim 2, Lumelsky discloses performing at least one calculation with respect to certain of said obtained data [col 4, lines 18-22; and col 8, lines 45-47].

12. As per claim 3, Lumelsky discloses wherein said allocating occurs when said prediction indicates that the resource are below said threshold [col 4, lines 23-29; col 11, lines 39-43; and col 14, lines 36-42].

13. As per claim 4, Lumelsky discloses without user intervention, enabling the reduction of resources when said prediction indicates that the required resources are above said limit [i.e. release] [col 4, lines 23-29; and col 11, lines 39-43].

14. As per claim 6, Lumelsky does not specifically disclose signal is in graphical form on a resource by resource basis. Ding discloses signal is in graphical form on a resource by resource basis [col 11, lines 11-31]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Lumelsky and Ding because Ding's teaching of graphical form would allow to view the system performance in real-time.

15. As per claim 7, Lumelsky discloses analyzing all available applications as a function of at least one system resource [col 13, lines 14-20].

16. As per claim 8, Lumelsky discloses hardware resources are selected from the set of resources, including memory, CPU, disk, available ports, and network resources [col 2, lines 63-65; and col 5, lines 15-18].

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17. As per claim 9, it is rejected for similar reasons as stated above in claims 1, 3 and 4.

18. As per claim 10, it is rejected for similar reason as stated above in claim 2.

19. As per claim 11, Lumelsky discloses adding resources to said computer from a remote location [col 5, lines 61-63; and col 7, lines 19-24].

20. As per claim 12, Lumelsky discloses removing resources from said computer [col 11, lines 39-43].

21. As per claim 13, Lumelsky discloses storing historical data on resource usage [Figure 5, and col 4, lines 14-18].

22. As per claim 14, it is rejected for similar reason as stated above in claim 7.

23. As per claims 15 and 16, they are apparatus claimed of claims 1, 2, they are rejected for similar reasons as stated above in claims 1, 2.

24. As per claims 18-22, they are apparatus claimed of claims 4, 13, 6-8, they are rejected for similar reasons as stated above in claims 4, 13, 6-8.

25. As per claims 23-28, they are apparatus claimed of claims 9-14, they are rejected for

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similar reasons as stated above in claims 9-14.

26. As per claims 29-33, they are program product claimed of claims 9-13, they are rejected for similar reasons as stated above in claims 9-13.

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (703) 305-5321. The examiner can normally be reached on flex.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Follansbee John can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dustin Nguyen
Examiner
Art Unit 2154

**JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**